

10/061,963

Attorney Docket No. 20496/321



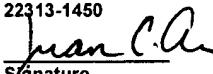
IN THE UNITED STATES PATENT & TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

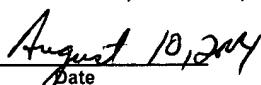
Group Art Unit: 3673
Examiner: Michael Safavi

Application of: Martin Steinwender
Serial No. : 10/061,963
Filing Date : February 1, 2002
Entitled : JOINT BETWEEN JOINT FACES
OF TWO COMPONENTS

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Date

COMMUNICATION

Sir:

Responsive to the Notification of Non-compliance With the Requirements of 37 C.F.R. 41.37(c), submitted herewith is an Amended Brief on Appeal in triplicate. Applicant has made a significant effort to respond to this Notification. It is believed that the Brief on Appeal submitted herewith is in full compliance with the requirements of 37 C.F.R. 41.37(c).

10/061,963

Attorney Docket No.: 20496/321

Accordingly, it is requested that this application now proceed to appeal.

Respectfully submitted,

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By 
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Date: August 10, 2005

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Enclosure: Brief on Appeal (in triplicate)



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John C. An
Signature

August 10, 2005
Date

AMENDED BRIEF ON APPEAL

Sir:

Appellant submits the following Brief on Appeal in connection with the above-identified patent application.

I. REAL PARTY IN INTEREST

The real party in interest in the above application is the assignee, Fritz Egger GmbH & Co., having a place of business located at Tiroler Str. 16, 3105 Unterradlberg, Austria.

II. RELATED APPEALS AND INTERFERENCES

There are no other prior or pending appeals, interferences or judicial proceedings known to appellant, the appellant's legal representative, or the assignee which may be related to, directly affect or be directly affected by, or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-10: rejected.

Claim 11: cancelled.

Claims 12-20: rejected.

Claims 23-24: rejected.

Claims 25-37: withdrawn.

Claims being appealed: 1-10, 12-20, and 23-24.

IV. STATUS OF AMENDMENTS

An Amendment Under 37 C.F.R. §1.116(b) was filed on or about April 21, 2005, to overcome an objection to a minor informality in claim 24. In an Advisory Action dated May 4, 2005, the Examiner indicated that this Amendment will be entered. No other Amendment Under 37 C.F.R. § 1.116(b) has been filed.

V. SUMMARY OF THE INVENTION

Referring to Figs. 1, 2, and 3(b) – 3(c), the invention of independent claims 1 and 24 is for a joint between two structural components, such as the two structural components 2 and 4 shown in Fig. 1. The components have joint faces 6 and 8 which

correspond and contact each other when brought together as shown for the tongue 12 and the groove 10 shown in Fig. 1. Specification, page 14, lines 10-21. A matrix material 14 or 16 is positioned on at least one of the joint faces. Specification, page 19, line 22, to page 15, line 4. Dispersed within the matrix are capsules 18 as shown in Figs. 3(b) – 3(c). The capsules are dispersed in such a way that the matrix is divided into at least two layers, one of which contains the capsules and the other of which contains no capsules as shown in Figs. 3b, 3c, and 3d. Thus, the embodiment shown in Fig. 3a is not being claimed. Within the capsules is a material for a reaction adhesive which, upon rupture of the capsules, is released entirely within the matrix. Specification, page 15, line 8, to page 16, line 18, and page 17, lines 1-25.

VI. Grounds of Rejection to be Reviewed on Appeal

- (1) The final rejection of claims 1-10, 12-17, and 24 under 35 U.S.C. 102(b) as being anticipated by US 3,639,137 (Marinelli, US '137).
- (2) The final rejection of claims 1-10, 12-17, and 24 under 35 U.S.C. 103(a) as being unpatentable over US 6,004,417 (Roesch et al., US '417) in view of Marinelli.
- (3) The final rejection of claims 1-10, 12-20, and 23-24 under 35 U.S.C. 103(a) as being unpatentable over either US 4,242,390 (Nemeth, US '390) or DE 297 03 963 (DE '963) in view of Roesch et al. and further in view of Marinelli.
- (4) The final rejection of claims 1-10, 12-20, and 23-24 under 35 U.S.C. 103(a) as being unpatentable over either Nemeth or DE '963 in view of Marinelli.

(5) The final rejection of claims 10, 13, and 15 under 35 U.S.C. 103(a) as being unpatentable over Marinelli in view of US 3,657,379 (Hilbelink, US '379).

VII. ARGUMENT

A. The Rejection of Claim 1-10, 12-17, and 24 as being Anticipated by US '137 (Marinelli)

As discussed above, independent claims 1 and 24 are directed to the embodiments illustrated in Figs. 3b, 3c, and 3d, but not to the embodiment shown in Fig. 3a. Thus, claims 1 and 24 recite that:

- (a) the capsules are “dispersed” completely within the matrix;
- (b) the matrix comprises at least two matrix layers;
- (c) at least one of the two matrix layers contains the “dispersed” capsules and at least one of the two matrix layers contains no capsules; and
- (d) the capsules at least partially release the material contained therein completely within the matrix under external influence.

In issuing the above rejection, the Examiner asserted that Figs. 1-3 of US '137 disclose a joint between components utilizing a multicomponent adhesive, which adhesive can take the form of a layer of matrix 29/30 containing microcapsules 28. The Examiner further stated that layers of the matrix 29/30 (such as the uppermost layer and the lowermost layer) do not possess microspheres with the microspheres lying in the central portion of the matrix, citing col. 4, lines 1-17. The Examiner further asserted that the matrix of US '137 contains at least one element of the reaction adhesive system with

the capsules containing at least a second element of the reaction adhesive system. The Examiner further asserted, on page 7 of the Final Office Action dated October 21, 2004, that US '137 discloses a system having a matrix with "multiple capsules dispersed completely within," again citing col. 4, lines 1-17, for support.

However, a careful reading of col. 4, lines 1-17, of US '137 reveals that it does not disclose or suggest the claimed invention, namely, a joint having a two-layer matrix, with capsules completely dispersed in one matrix layer and with no capsules dispersed in the other matrix layer. Nor does col. 4, lines 1-17, disclose "a matrix with capsules completely within" as asserted by the Examiner.

US '137 discloses a pressure-activated encapsulated sealant system. As illustrated in Figs. 1-3, and as explained at col. 2, lines 31-49, and col. 4, lines 21-74, the adhesive system of US '137 consists of a binder film comprising a lower layer 29 and an upper layer 30, and curing agent particles dispersed therein. The adhesive system further comprises a liquid curable sealant material contained within pressure rupturable capsules 28. Capsules 28 are very large in comparison to the thickness of the binder film, as clearly illustrated in Fig. 1, of US '137. Further, as stated at col. 4, lines 21-30, the binder film is of minor dimension in thickness with respect to the size of the capsules, so that the capsules are only "partially embedded" in the binder film. See also col. 2, lines 46-49 ("partially embedded therein").

Additionally, US '137 describes and illustrates the finely divided curing agent particles as being "dispersed" in the layers 29, 30 (see, e.g., col. 4, lines 35-36).

However, this term is not applied to capsules 28. Considering the relative size of capsules 28 in comparison to layers 29 and 30, no person of ordinary skill in the art would consider the capsules 28 of US '137 as being "completely dispersed" within the matrix as required by claims 1 and 24. See Fig. 1 of US '137. Nor would a person of ordinary skill in the art consider capsules 28 to be "dispersed" within one matrix layer and absent from another matrix layer. Rather, as stated in US '137, the capsules 28 are "dusted" onto the binder film so that they are "partially embedded" therein. See col. 2, line 49; col. 4, lines 3 and 25-26. This is very different from being "completely dispersed" within the matrix.

In contrast to US '137, claims 1 and 24 require that the microcapsules be "dispersed completely within the matrix." Furthermore, claims 1 and 24 require that the microcapsules be within one of the matrix layers and be absent from the other matrix layer. These claims also require that the capsules release their contents completely within the matrix under external influence.

It is therefore submitted that claims 1 and 24, as well as all of the claims which depend from them, specify a structure which is neither disclosed nor suggested by US '137. Accordingly, reversal of the rejection of claims 1-10, 12-17, and 24 as being anticipated by US '137 is respectfully requested.

B. The Rejection of Claim 1-10, 12-17, and 24 as Being Unpatentable Over US '417 (Roesch et al.) in view of US '147 (Marinelli)

In issuing the above rejection, the Examiner asserted that US '417 discloses in Figs. 1-3 a joint between two components utilizing a multi-component adhesive which

adhesive can take the form of a matrix 5 and micro capsules 1, Fig. 1, as well as layers of matrix 5 and micro capsules 1, Fig. 2, as well as application of two different types of micro capsules possessing different materials of the reaction adhesive system. The Examiner also asserted that the capsules are distributed as a layer along an upper surface or upper portion of the matrix as defined by US '417 at lines 18-24 and 60-65 of col. 9, which teaches applying the adhesive in the form of a matrix having the micro capsules distributed along a layer thereof. The Examiner further relied on US '137 for the same reasons as in the prior ground for rejection. The Examiner further stated that to have enhanced the adhesive system of US '417 as by applying a second or upper layer of matrix upon or over the micro capsules, thus serving to assure a more secure holding of the micro capsules to the surface, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by US '137, at col. 4, lines 1-17.

The deficiencies of US '137 are discussed in detail in the prior section of this brief. Specifically, that section discusses why US '137 does not disclose or suggest that the micro capsules be "dispersed completely within the matrix," as recited in claims 1 and 24. Accordingly, even when US '417 is taken together with US '137, the limitations set forth in claims 1 and 24 are neither disclosed nor suggested by these references. Therefore, reversal of this ground for rejection is respectfully requested.

**C. The Rejection of Claim 1-10, 12-20, and 23-24 of
Being Unpatentable Over US '390 (Nemeth) or DE '963
in view of US '417 and Further In View of US '137**

In issuing the above rejection, the Examiner asserted that US '390 discloses utilization of adhesive within a joint between two components of a floor covering. The Examiner further asserted that DE '963 discloses in Figs. 1 and 2 utilization of adhesive within a joint between two components of a floor covering. The Examiner further incorporated his analysis of US '417 and US '137. The Examiner concluded that to have applied any of the multi-component adhesive systems disclosed in US '417 within the floor covering connections of either US '390 or DE '963 while enhancing the US '417 adhesive system as by applying a second or upper layer of matrix upon or over the micro capsules, thus taking advantage of any of various well known multi-component adhesives while serving to assure a more secure holding of the micro capsules to the surface, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by US '417 while further considering US '137.

However, the deficiencies of relying on US '137 have been discussed in a prior selection. These arguments are incorporated herein by reference.

Accordingly, the claims listed above are not rendered unpatentable by the combination of US '390 or DE '963 in view of US '417 and US '137 and reversal of this ground for rejection is respectfully requested.

D. The Rejection of Claim 1-10, 12-20, and 23-24 as Being Unpatentable Over Either of US '390 or DE '963 in View of US '137

In issuing this rejection, the Examiner relied on US '390 and DE '963 as in the prior section. The Examiner further relied on US '137 as in section A above. The Examiner stated that to have applied any of the multi-component adhesive systems

disclosed in US '137 within the floor covering connections of either US '390 or DE '963, thus taking advantage of any of various well-known multi-component adhesives, would have constituted an obvious expedient to one having ordinary skill in the art at the time the invention was made.

However, as discussed in section A above, US '137 has many deficiencies. Those arguments are incorporated herein by reference.

Accordingly, it is believed that claims 1-10, 12-20, and 23-24 are not rendered unpatentable by US '390 or DE '963 in view of US '137 and reversal of this ground for rejection is respectfully requested.

E. The Rejection of Claims 10, 13, and 15 as Being Unpatentable Over US '137 in View of US '379 (Hilbelink et al.)

In issuing this rejection, the Examiner applied US '137 substantially as discussed in section A above. The Examiner further asserted that US '379 discloses utilization of various adhesive systems including two component adhesive systems having one and a second component encapsulated as well as one component encapsulated and the second component within a matrix within which the encapsulating component is contained. The Examiner stated that to have provided the adhesive system of US '137 with matrix 29/30 containing capsules possessing one component of the reaction adhesive as well as capsules possessing a second component of the reaction adhesive, thus allowing a uniform dispersion of the components of the US '137 Marinelli adhesive system, would have constituted an obvious expedient to one having ordinary skill in the art at the time the invention was made, as taught by US '379.

However, the deficiencies of US '137 were discussed in section A above. These arguments are incorporated herein by reference.

Accordingly, claims 10, 13, and 15 are not rendered unpatentable by the combination of US '137 in view of US '379, and reversal of this ground for rejection is respectfully requested.

VIII. CLAIMS APPENDIX

Claim 1. A joint between two structural components comprising:

- (a) joint faces on both components wherein the joint faces at least partially correspond with one another and at least partially contact one another in the jointed state;
- (b) a matrix positioned on at least a part of at least one of the joint faces;
- (c) multiple capsules dispersed completely within the matrix; and
- (d) a material of a reaction adhesive system contained in the capsules,

wherein the matrix comprises at least two matrix layers, wherein at least one of the two matrix layers contains the dispersed capsules and at least one of the two matrix layers contains no capsules, and wherein at least part of the capsules at least partially release the material contained therein completely within the matrix under external influence.

Claim 2. The joint according to claim 1, wherein the capsules at least partially release the material under the effect of force, wherein said force is selected from the group consisting of pressure and friction.

Claim 3. The joint according to claim 1, wherein the capsules at least partially release the material under the effect of external energy, wherein the external energy is selected from the group consisting of thermal energy, ultrasound energy, high frequency energy, light energy, and UV energy.

Claim 4. The joint according to claim 1, wherein the capsules at least partially release the material under the effect of a liquid, wherein said liquid comprises water.

Claim 5. The joint according to claim 1, wherein the matrix is made of an adhesive, resin or wax.

Claim 6. The joint according to claim 5, wherein the matrix effects a seal of the joint face.

Claim 7. The joint according to claim 1, wherein the material reaction adhesive system comprises at least two elements, the capsules contain a first element of the material reaction adhesive system, and water represents the second element.

Claim 8. The joint according to claim 1, wherein the material reaction adhesive system comprises at least two elements, the capsules contain at least one element of the material reaction adhesive system, and the matrix at least partially comprises a second element of the material reaction adhesive system.

Claim 9. The joint according to claim 8, wherein the capsules or the matrix have at least one further element of the material reaction adhesive system.

Claim 10. The joint according to claim 8, wherein the material reaction adhesive system comprises at least two different types of capsules having different elements of the material reaction adhesive system.

Claim 11. (Cancelled)

Claim 12. The joint according to claim 1, wherein the at least two matrix layers comprise different elements of the material reaction adhesive system.

Claim 13. The joint according to claim 1, wherein the two matrix layers comprise different elements of the material reaction adhesive system.

Claim 14. The joint according to claim 1, wherein both joint faces comprise the matrix containing capsules.

Claim 15. The joint according to claim 14, wherein one of the joint faces comprise a matrix having first capsules and the other of the joint faces comprise a matrix having second capsules, with the first capsules containing a first element and the second capsules containing a second element of a material reaction adhesive system.

Claim 16. The joint according to claim 1, wherein the joint faces of both structural components abut against one another.

Claim 17. The joint according to claim 1, wherein the joint faces of both structural components are implemented as a tongue and groove joint.

Claim 18. The joint according to claim 1, wherein at least one structural component is made of a cellulose-containing material.

Claim 19. The joint according to claim 18, wherein at least one structural component is made of wood or a wooden material.

Claim 20. The joint according to claim 18, wherein one of the two structural components is made of a cellulose-containing material, and the other of the two structural components is made of a metal or a plastic.

Claims 21-22. (Cancelled)

Claim 23. The joint according to claim 1, wherein the structural components are panels of a floor covering.

Claim 24. A structural component comprising:

- (a) at least one joint face for a joint with further components;
- (b) a matrix positioned on at least part of said at least joint face;
- (c) multiple capsules dispersed completely within the matrix; and
- (d) a material of a reaction adhesive system contained in the capsules, wherein

the matrix comprises at least two matrix layers, wherein at least one of the two matrix layers comprises the dispersed capsules and at least one of the two matrix layers comprises no capsules, and wherein at least a part of the capsules at least partially release the material contained in them completely within the matrix under external influence.

Claims 25-37. (Withdrawn)

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.

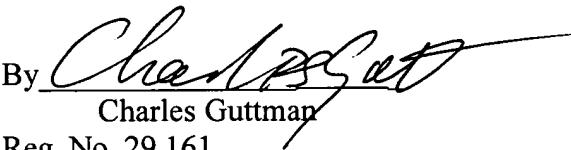
XI. CONCLUSION

For the reasons stated above, it is requested that the Examiner's rejection of all pending claims under 35 U.S.C. 102(b) and/or under 35 U.S.C. 103(a) be reversed.

Respectfully submitted,

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Date: August 10, 2005

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